IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	Unknown	)
Filing Date:	Unknown	)
Priority Date:	7 August 2000	)
Applicants:	HODGKINSON, Andrew	)
For:	DEFERRED INTERNET PAGE DISPLAY REFORMATTING	)

PRELIMINARY AMENDMENT

Director For Patents
Box: New Application
Washington, D.C. 20231

Dear Sir:

This is a preliminary amendment to the enclosed application entitled "Deferred Internet Page Display Reformatting" claiming priority to British Patent Application No. 0019151.0 filed 7 August 2000.

In the Specification:

Please amend the specification as follows:

Page 1, after the title insert the following header and paragraph:

--CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to British Patent Application No. 0019151.0 filed 7 August 2000.--;

BACKGROUND OF THE INVENTION–

Page 1, line 17, change "eth" to --the--; line 18 delete "."; line 29, change "programmes" to --programs--.

Page 3, before line 3, insert the Header:

--SUMMARY OF THE INVENTION–

Page 3, line 10, change "characterised" to --characterized--.

Page 5, line 5, change "characterised" to --characterized--.

Page 5 before line 22 insert the Header:

--BRIEF DESCRIPTION OF THE DRAWINGS–

Page 6, before the first line, add the Header:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Page 6, line 6, change "programmes" to --programs--.

Page 12, line, delete "a"; after line 20, add the following paragraph:

--While the invention has been described with a certain degree of particularly, it is manifest that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure. It is understood that the invention is not limited to the embodiments set forth herein for purposes of exemplification, but is to be limited only by the scope of the attached claim or claims, including the full range of equivalency to which each element thereof is entitled.--

IN THE CLAIMS:

1. (Amended) An internet web browser facility, said facility comprising: the capability [capable] of identifying and obtaining data for a web page in response to a user instruction and processing the received data to generate and display the web page on a display screen connected thereto and [characterised in that] wherein when the web page has been selected and the data is

being received the reformatting of the displayed web page is controlled so as to occur only after a predetermined time has elapsed since the previous web page reformat and/or after a predetermined event has occurred.

2. (Amended) An internet web browser facility according to claim 1 [characterised in that] wherein the use of the data processor is controlled by allowing the reformatting of the displayed web page to be stopped from occurring as the data is received [so the use of the data processor is controlled].

3. (Amended) An internet web browser facility according to claim 1 [characterised in that] wherein the facility prevents the reformatting of the displayed page until a prefixed time interval has elapsed after the previous display page reformat.

4. An internet web browser facility according to claim 1 [characterised in that] wherein when the first portion of data is received for a newly selected display page a reformat is carried out immediately to give the user the earliest possible indication of progress.

5. An internet web browser facility according to claim 1 [characterised in that] wherein when an event occurs in the reception of data that would conventionally cause an immediate reformat of the web page the facility notes the highest y-coordinate point or level in the displayed page that would be affected by the reformat and commences the time interval.

6. (Amended) An internet web browser facility according to claim 5 [characterised in that no] wherein page display reformatting is prevented from occurring [occurs] until a

predetermined time interval has elapsed.

7. (Amended) An internet web browser facility according to claim 5 [characterised in that] wherein a reformatting of the page display can occur during the time interval if all or a predefined proportion of data for the page is received during the time interval.

8. (Amended) An internet web browser facility according to claim 7 [characterised in that] wherein sufficient data is deemed to have been received when data which would allow changes to the web page to be achieved up to the previously noted highest y-coordinate point or level has been received.

9. (Amended) An internet web browser facility according to claim 1 [characterised in that] wherein when the time interval has elapsed or the entire data fetch is complete as required, the reformatting of the displayed page can occur and the parts of the page which need to be changed in response to the newly received data are reformatted.

10. (Amended) A management system for the operation of an on screen page display which is generated from a user selected internet site, said system [including] comprising: a deferring system which prevents the web browser from reformatting pages during the reception of data each time the display page layout needs to change in response to a user selection [characterised in that] wherein the web browser reformats [at no more often than] according to a predesignated time interval or when a predetermined amount of the data for the new page has been received.

11. (Amended) A management system according to claim 10 [characterised in that] wherein when a new data event occurs that would normally cause an immediate page reformat, the browser takes note of the highest point in the page that would be affected and starts a time and [no] delays reformat [occurs] until a predesignated time elapses.

12. (Amended) A management system according to claim 10 [characterised in that] wherein the reformat is delayed for the duration of a predesignated time period from the occurrence of a user selection.

13. (Amended) A management system according to claim 10 [characterised in that] wherein the reformat is delayed until all data for the entire page is received.

14. (Amended) A management system according to claim 10 [characterised in that] wherein upon a user selection, the processor performs the data reception function only[,] for a predesignated period of time.

15. (Amended) A management system according to claim 10 wherein [any of the preceding claims characterised in that] the system is incorporated in a processor of a broadcast data receiver which allows internet access.

REMARKS

Attached are the marked up versions of the claims and new paragraphs as required in Section 1.121(4) (ii).

The application should now be in condition for examination, which is respectfully requested.

Respectfully Submitted

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Dated: 1 August 2001

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New Header to be Inserted on Page 1, before line 1:

CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to British Patent Application No. 0019151.0 filed 7 August 2000.

BACKGROUND OF THE INVENTION-

Replacement paragraphs for Page 1:

When fetching pages, Personal Computer (PC) based web browser facilities tend to search for and fetch the data for a selected internet web page and then display the display generated from the fetched data as soon as they can. On devices with processor power and random access memory (RAM) available, this is typically the best approach, with memory of a sufficient size to allow data for a whole internet page display being capable of being stored. The ability to store data for the whole-window can be used to avoid a "flickering" display on the display screen so that reformatting of the page being displayed takes place almost instantaneously and without affecting the use of the page by the user as the page reformats and is updated.

However web browser facilities are not always provided in PC apparatus and can be usefully provided in other apparatus such as television apparatus and with apparatus such as broadcast data receivers (BDRs). The BDR can be provided as an integral part of a television set or can be provided in connection therewith. The BDR's main function is to receive data broadcast from a remote location typically by a broadcaster or broadcast provided and the data can be transmitted by any of cable, satellite or terrestrial broadcast systems. When the data is received the BDR decodes and processes the data to allow the generation of television and/or radio programs and/or

New paragraph Header to be inserted into Page 3 before line 3:

SUMMARY OF THE INVENTION

New Paragraph to be Inserted into Page 3:

In a first aspect of the invention there is provided an internet web browser facility, said facility capable of identifying and obtaining data for a web page in response to a user instruction and processing the received data to generate and display the web page on a display screen connected thereto and characterized in that when the web page has been selected and the data is being received the reformatting of the displayed web page is controlled so as to occur only after a predetermined time has elapsed since the previous web page reformat and/or after a predetermined event has occurred.

Replacement Paragraphs for Page 5:

screen page display which is generated from a user selected internet site, said system including a deferring system which prevents the web browser from reformatting pages during the reception of data each time the display page layout needs to change in response to a user selection characterized in that the web browser reformats at no more often than a predesignated time interval or when a predetermined amount of the data for the new page has been received.

Page 5, Before Line 22 Insert the Following Header:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 6, Before the First Line Insert the Following Header:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Replacement Paragraph for Page 6:

The Internet web browser function is, in the embodiment of the invention now described, provided as part of a BDR and when selected by the user of the BDR is operational to retrieve and process data leading to the generation of a user selected internet web page. The BDR receives data for television and radio programs and auxiliary displays on a television set or similar, via satellite, cable or terrestrial systems. Data can also be received via communications link such as a telecommunications or cable link.

Replacement Paragraph for Page 12:

Reformats occur less often and encompass more changes using the invention in comparison with the conventional method over a traditional model. Consequently, deferred reformatting can prove sufficiently beneficial that in embedded devices it becomes possible to select a lower power processor than would otherwise be required, reducing the cost of the hardware. The user of the device sees less flicker and smoother highlight-based navigation during page fetches, making the device more appealing to consumers.

New Paragraph for Page 12 to be Inserted After the Last Line:

While the invention has been described with a certain degree of particularly, it is manifest that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure. It is understood that the invention is not limited to the embodiments set forth herein for purposes of exemplification, but is to be limited only by the scope of the attached claim or claims, including the full range of equivalency to which each element thereof is entitled.

Clean Version of the Claims

1. (Amended) An internet web browser facility, said facility comprising: the capability of identifying and obtaining data for a web page in response to a user instruction and processing the received data to generate and display the web page on a display screen connected thereto and wherein when the web page has been selected and the data is being received the reformatting of the displayed web page is controlled so as to occur only after a predetermined time has elapsed since the previous web page reformat and/or after a predetermined event has occurred.

2. (Amended) An internet web browser facility according to claim 1 wherein the use of the data processor is controlled by allowing the reformatting of the displayed web page to be stopped from occurring as the data is received.

3. (Amended) An internet web browser facility according to claim 1 wherein the facility prevents the reformatting of the displayed page until a prefixed time interval has elapsed after the previous display page reformat.

4. (Amended) An internet web browser facility according to claim 1 wherein when the first portion of data is received for a newly selected display page a reformat is carried out immediately to give the user the earliest possible indication of progress.

5. (Amended) An internet web browser facility according to claim 1 wherein when an event occurs in the reception of data that would conventionally cause an immediate reformat of the web page the facility notes the highest y-coordinate point or level in the displayed page that would be affected by the reformat and commences the time interval.

6. (Amended) An internet web browser facility according to claim 5 wherein page display reformatting is prevented from occurring until a predetermined time interval has elapsed.

7. (Amended) An internet web browser facility according to claim 5 wherein a reformatting of the page display can occur during the time interval if all or a predefined proportion of data for the page is received during the time interval.

8. (Amended) An internet web browser facility according to claim 7 wherein sufficient data is deemed to have been received when data which would allow changes to the web page to be achieved up to the previously noted highest y-coordinate point or level has been received.

9. (Amended) An internet web browser facility according to claim 1 wherein when the time interval has elapsed or the entire data fetch is complete as required, the reformatting of the displayed page can occur and the parts of the page which need to be changed in response to the newly received data are reformatted.

10. (Amended) A management system for the operation of an on screen page display which is generated from a user selected internet site, said system comprising: a deferring system which prevents the web browser from reformatting pages during the reception of data each time the display page layout needs to change in response to a user selection wherein the web browser reformats according to a predesignated time interval or when a predetermined amount of the data for the new page has been received.

11. (Amended) A management system according to claim 10 wherein when a new data event occurs that would normally cause an immediate page reformat, the browser takes note of the highest point in the page that would be affected and starts a time and delays reformat until a predesignated time elapses.

12. (Amended) A management system according to claim 10 wherein the reformat is delayed for the duration of a predesignated time period from the occurrence of a user selection.

13. (Amended) A management system according to claim 10 wherein the reformat is delayed until all data for the entire page is received.

14. (Amended) A management system according to claim 10 wherein upon a user selection, the processor performs the data reception function only for a predesignated period of time.

15. (Amended) A management system according to claim 10 wherein claims the system is incorporated in a processor of a broadcast data receiver which allows internet access.